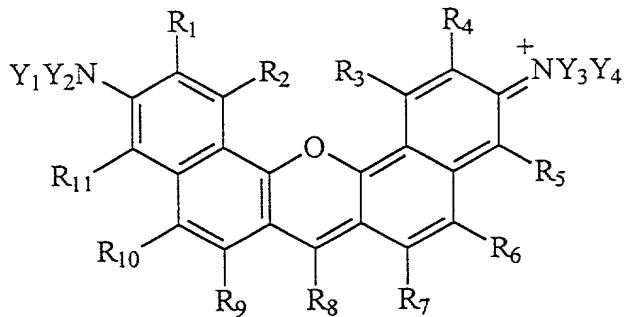


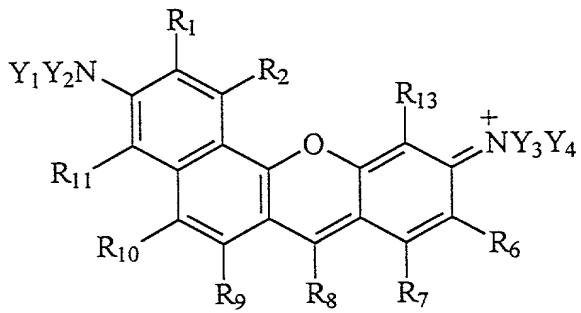
WE CLAIM:

1. An extended rhodamine compound having the structure



10

or,



wherein

20 R₁ taken alone is selected from the group consisting of -H, alkyl, alkyl independently substituted with one or more Z₁, heteroalkyl, heteroalkyl independently substituted with one or more Z₁, aryl, aryl independently substituted with one or more Z₁, heteroaryl, heteroaryl independently substituted with one or more Z₁, arylalkyl, arylalkyl independently substituted with one or more Z₁, heteroarylalkyl, heteroarylalkyl independently substituted with one or more Z₁, halogen, -OS(O)₂OR, -S(O)₂OR, -S(O)₂R, -S(O)₂NR, -S(O)R, -OP(O)O₂RR, -P(O)O₂RR, -C(O)OR, -NRR, -NRRR, -NC(O)R, -C(O)R, -C(O)NRR, -CN, and -OR, wherein R is independently selected from the group consisting of -H, alkyl, heteroalkyl, aryl, heteroaryl, arylalkyl, heteroarylalkyl and linking group, or, R₁ taken together with R₂, Y₁, or Y₂ is selected from the group consisting of alkylene, alkylene independently substituted with one or more Z₁, heteroalkylene, heteroalkylene independently substituted with one or more Z₁, arylene, arylene independently substituted with one or more Z₁, heteroarylene, and heteroarylene independently substituted with one or more Z₁;

25

30

R₂ taken alone is selected from the group consisting of -H, alkyl, alkyl independently substituted with one or more Z₁, heteroalkyl, heteroalkyl independently substituted with one or more Z₁, aryl, aryl independently substituted with one or more Z₁, heteroaryl, heteroaryl independently substituted with one or more Z₁, arylalkyl, arylalkyl independently substituted with one or more Z₁, heteroarylalkyl, heteroarylalkyl independently substituted with one or more Z₁, halogen, -OS(O)₂OR, -S(O)₂OR, -S(O)₂R, -S(O)₂NR, -S(O)R, -OP(O)O₂RR, -P(O)O₂RR, -C(O)OR, -NRR, -NRRR, -NC(O)R, -C(O)R, -C(O)NRR, -CN, and -OR, wherein R is independently selected from the group consisting of -H, alkyl, heteroalkyl, aryl, heteroaryl, arylalkyl, heteroarylalkyl and linking group, or, R₂ taken together with R₁ is selected from the group consisting of alkyleneo, alkyleneo independently substituted with one or more Z₁, heteroalkyleneo, heteroalkyleneo independently substituted with one or more Z₁, aryleneo, aryleneo independently substituted with one or more Z₁, heteroaryleneo, and heteroaryleneo independently substituted with one or more Z₁;

R₃ taken alone is selected from the group consisting of -H, alkyl, alkyl independently substituted with one or more Z₁, heteroalkyl, heteroalkyl independently substituted with one or more Z₁, aryl, aryl independently substituted with one or more Z₁, heteroaryl, heteroaryl independently substituted with one or more Z₁, arylalkyl, arylalkyl independently substituted with one or more Z₁, heteroarylalkyl, heteroarylalkyl independently substituted with one or more Z₁, halogen, -OS(O)₂OR, -S(O)₂OR, -S(O)₂R, -S(O)₂NR, -S(O)R, -OP(O)O₂RR, -P(O)O₂RR, -C(O)OR, -NRR, -NRRR, -NC(O)R, -C(O)R, -C(O)NRR, -CN, and -OR, wherein R is independently selected from the group consisting of -H, alkyl, heteroalkyl, aryl, heteroaryl, arylalkyl, heteroarylalkyl and linking group, or, R₃ taken together with R₄ is selected from the group consisting of alkyleneo, alkyleneo independently substituted with one or more Z₁, heteroalkyleneo, heteroalkyleneo independently substituted with one or more Z₁, aryleneo, aryleneo independently substituted with one or more Z₁, heteroaryleneo, and heteroaryleneo independently substituted with one or more Z₁;

R₄ taken alone is selected from the group consisting of -H, alkyl, alkyl independently substituted with one or more Z₁, heteroalkyl, heteroalkyl independently substituted with one or more Z₁, aryl, aryl independently substituted with one or more Z₁, heteroaryl, heteroaryl independently substituted with one or more Z₁, arylalkyl, arylalkyl independently substituted with one or more Z₁, heteroarylalkyl, heteroarylalkyl independently substituted with one or more Z₁, halogen, -OS(O)₂OR, -S(O)₂OR, -S(O)₂R, -S(O)₂NR, -S(O)R, -OP(O)O₂RR, -

P(O)O₂RR, -C(O)OR, -NRR, -NRRR, -NC(O)R, -C(O)R, -C(O)NRR, -CN, and -OR, wherein R is independently selected from the group consisting of -H, alkyl, heteroalkyl, aryl, heteroaryl, arylalkyl, heteroarylalkyl and linking group, or, R₄ taken together with R₃, Y₃, or Y₄ is selected from the group consisting of alkylene, alkylene independently substituted with 5 one or more Z₁, heteroalkylene, heteroalkylene independently substituted with one or more Z₁, arylene, arylene independently substituted with one or more Z₁, heteroarylene, and heteroarylene independently substituted with one or more Z₁;

R₅ taken alone is selected from the group consisting of -H, alkyl, alkyl independently substituted with one or more Z₁, heteroalkyl, heteroalkyl independently substituted with one or 10 more Z₁, aryl, aryl independently substituted with one or more Z₁, heteroaryl, heteroaryl independently substituted with one or more Z₁, arylalkyl, arylalkyl independently substituted with one or more Z₁, heteroarylalkyl, heteroarylalkyl independently substituted with one or more Z₁, halogen, -OS(O)₂OR, -S(O)₂OR, -S(O)₂R, -S(O)₂NR, -S(O)R, -OP(O)O₂RR, -P(O)O₂RR, -C(O)OR, -NRR, -NRRR, -NC(O)R, -C(O)R, -C(O)NRR, -CN, and -OR, wherein 15 R is independently selected from the group consisting of -H, alkyl, heteroalkyl, aryl, heteroaryl, arylalkyl, heteroarylalkyl and linking group, or, R₅ taken together with R₆, Y₃, or Y₄ is selected from the group consisting of alkylene, alkylene independently substituted with one or more Z₁, heteroalkylene, heteroalkylene independently substituted with one or more Z₁, arylene, arylene independently substituted with one or more Z₁, heteroarylene, and 20 heteroarylene independently substituted with one or more Z₁;

R₆ taken alone is selected from the group consisting of -H, alkyl, alkyl independently substituted with one or more Z₁, heteroalkyl, heteroalkyl independently substituted with one or more Z₁, aryl, aryl independently substituted with one or more Z₁, heteroaryl, heteroaryl independently substituted with one or more Z₁, arylalkyl, arylalkyl independently substituted with one or more Z₁, heteroarylalkyl, heteroarylalkyl independently substituted with one or more Z₁, halogen, -OS(O)₂OR, -S(O)₂OR, -S(O)₂R, -S(O)₂NR, -S(O)R, -OP(O)O₂RR, -P(O)O₂RR, -C(O)OR, -NRR, -NRRR, -NC(O)R, -C(O)R, -C(O)NRR, -CN, and -OR, wherein 25 R is independently selected from the group consisting of -H, alkyl, heteroalkyl, aryl, heteroaryl, arylalkyl, heteroarylalkyl and linking group, or, R₆ taken together with R₅, R₇, Y₃, or Y₄ is selected from the group consisting of alkylene, alkylene independently substituted with one or 30 more Z₁, heteroalkylene, heteroalkylene independently substituted with one or more Z₁,

more Z_1 , arylene, arylene independently substituted with one or more Z_1 , heteroaryleno, and heteroaryleno independently substituted with one or more Z_1 ;

R, taken alone is selected from the group consisting of -H, alkyl, alkyl independently substituted with one or more Z_1 , heteroalkyl, heteroalkyl independently substituted with one or more Z_1 , aryl, aryl independently substituted with one or more Z_1 , heteroaryl, heteroaryl independently substituted with one or more Z_1 , arylalkyl, arylalkyl independently substituted with one or more Z_1 , heteroarylalkyl, heteroarylalkyl independently substituted with one or more Z_1 , halogen, $-OS(O)_2OR$, $-S(O)_2OR$, $-S(O)_2R$, $-S(O)_2NR$, $-S(O)R$, $-OP(O)O_2RR$, $-P(O)O_2RR$, $-C(O)OR$, $-NRR$, $-NRRR$, $-NC(O)R$, $-C(O)R$, $-C(O)NRR$, $-CN$, and $-OR$, wherein

10 R is independently selected from the group consisting of -H, alkyl, heteroalkyl, aryl, heteroaryl, arylalkyl, heteroarylalkyl and linking group, or, R, taken together with R_6 is selected from the group consisting of alkylene, alkylene independently substituted with one or more Z_1 , heteroalkylene, heteroalkylene independently substituted with one or more Z_1 , arylene, arylene independently substituted with one or more Z_1 , heteroaryleno, and heteroaryleno independently substituted with one or more Z_1 ;

15 R_8 is selected from the group consisting of -H, alkyl, alkyl independently substituted with one or more Z_1 , heteroalkyl, heteroalkyl independently substituted with one or more Z_1 , aryl, aryl independently substituted with one or more Z_1 , heteroaryl, heteroaryl independently substituted with one or more Z_1 , arylalkyl, arylalkyl independently substituted with one or more Z_1 , heteroarylalkyl, heteroarylalkyl independently substituted with one or more Z_1 ;

20 R_9 taken alone is selected from the group consisting of -H, alkyl, alkyl independently substituted with one or more Z_1 , heteroalkyl, heteroalkyl independently substituted with one or more Z_1 , aryl, aryl independently substituted with one or more Z_1 , heteroaryl, heteroaryl independently substituted with one or more Z_1 , arylalkyl, arylalkyl independently substituted with one or more Z_1 , heteroarylalkyl, heteroarylalkyl independently substituted with one or more Z_1 , halogen, $-OS(O)_2OR$, $-S(O)_2OR$, $-S(O)_2R$, $-S(O)_2NR$, $-S(O)R$, $-OP(O)O_2RR$, $-P(O)O_2RR$, $-C(O)OR$, $-NRR$, $-NRRR$, $-NC(O)R$, $-C(O)R$, $-C(O)NRR$, $-CN$, and $-OR$, wherein R is independently selected from the group consisting of -H, alkyl, heteroalkyl, aryl, heteroaryl, arylalkyl, heteroarylalkyl and linking group, or, R, taken together with R_{10} is selected from the group consisting of alkylene, alkylene independently substituted with one or more Z_1 , heteroalkylene, heteroalkylene independently substituted with one or more Z_1 , arylene, arylene independently substituted with one or more Z_1 , heteroaryleno, heteroaryleno independently substituted with one or more Z_1 ,

aryleno, aryleno independently substituted with one or more Z_1 , heteroaryleno, and heteroaryleno independently substituted with one or more Z_1 ;

5 R_{10} taken alone is selected from the group consisting of -H, alkyl, alkyl independently substituted with one or more Z_1 , heteroalkyl, heteroalkyl independently substituted with one or more Z_1 , aryl, aryl independently substituted with one or more Z_1 , heteroaryl, heteroaryl independently substituted with one or more Z_1 , arylalkyl, arylalkyl independently substituted with one or more Z_1 , heteroarylalkyl, heteroarylalkyl independently substituted with one or more Z_1 , halogen, -OS(O)₂OR, -S(O)₂OR, -S(O)₂R, -S(O)₂NR, -S(O)R, -OP(O)O₂RR, -P(O)O₂RR, -C(O)OR, -NRR, -NRRR, -NC(O)R, -C(O)R, -C(O)NRR, -CN, and -OR, wherein R is independently selected from the group consisting of -H, alkyl, heteroalkyl, aryl, heteroaryl, arylalkyl, heteroarylalkyl and linking group, or, R_{10} taken together with R_9 or R_{11} is selected from the group consisting of alkyleno, alkyleno independently substituted with one or more Z_1 , heteroalkyleno, heteroalkyleno independently substituted with one or more Z_1 , aryleno, aryleno independently substituted with one or more Z_1 , heteroaryleno, and heteroaryleno independently substituted with one or more Z_1 ;

15 R_{11} taken alone is selected from the group consisting of -H, alkyl, alkyl independently substituted with one or more Z_1 , heteroalkyl, heteroalkyl independently substituted with one or more Z_1 , aryl, aryl independently substituted with one or more Z_1 , heteroaryl, heteroaryl independently substituted with one or more Z_1 , arylalkyl, arylalkyl independently substituted with one or more Z_1 , heteroarylalkyl, heteroarylalkyl independently substituted with one or more Z_1 , halogen, -OS(O)₂OR, -S(O)₂OR, -S(O)₂R, -S(O)₂NR, -S(O)R, -OP(O)O₂RR, -P(O)O₂RR, -C(O)OR, -NRR, -NRRR, -NC(O)R, -C(O)R, -C(O)NRR, -CN, and -OR, wherein R is independently selected from the group consisting of -H, alkyl, heteroalkyl, aryl, heteroaryl, arylalkyl, heteroarylalkyl and linking group, or, R_{11} taken together with R_{10} , Y_1 or Y_2 is selected from the group consisting of alkyleno, alkyleno independently substituted with one or more Z_1 , heteroalkyleno, heteroalkyleno independently substituted with one or more Z_1 , aryleno, aryleno independently substituted with one or more Z_1 , heteroaryleno, and heteroaryleno independently substituted with one or more Z_1 ;

20 R_{13} taken alone is selected from the group consisting of -H, alkyl, alkyl independently substituted with one or more Z_1 , heteroalkyl, heteroalkyl independently substituted with one or more Z_1 , aryl, aryl independently substituted with one or more Z_1 , heteroaryl, heteroaryl independently substituted with one or more Z_1 , arylalkyl, arylalkyl

independently substituted with one or more Z_1 , heteroarylalkyl, heteroarylalkyl independently substituted with one or more Z_1 , halogen, $-OS(O)_2OR$, $-S(O)_2OR$, $-S(O)_2R$, $-S(O)_2NR$, $-S(O)R$, $-OP(O)O_2RR$, $-P(O)O_2RR$, $-C(O)OR$, $-NRR$, $-NRRR$, $-NC(O)R$, $-C(O)R$, $-C(O)NRR$, $-CN$, and $-OR$, wherein R is independently selected from the group consisting of $-H$, alkyl, 5 heteroalkyl, aryl, heteroaryl, arylalkyl, heteroarylalkyl and linking group, or, R_{13} taken together with Y_3 or Y_4 is selected from the group consisting of alkylene, alkylene independently substituted with one or more Z_1 , heteroalkylene, heteroalkylene independently substituted with one or more Z_1 , arylene, arylene independently substituted with one or more Z_1 , heteroarylene, and heteroarylene independently substituted with one or more Z_1 ;

10 Y_1 taken alone is selected from the group consisting of $-H$, alkyl, alkyl independently substituted with one or more Z_1 , heteroalkyl, heteroalkyl independently substituted with one or more Z_1 , aryl, aryl independently substituted with one or more Z_1 , heteroaryl, heteroaryl independently substituted with one or more Z_1 , arylalkyl, arylalkyl independently substituted with one or more Z_1 , heteroarylalkyl, and heteroarylalkyl independently substituted with one or more Z_1 , or Y_1 taken together with R_1 , R_{11} or Y_2 is selected from the group consisting of 15 alkylene, alkylene independently substituted with one or more Z_1 , heteroalkylene, heteroalkylene independently substituted with one or more Z_1 , arylene, arylene independently substituted with one or more Z_1 , heteroarylene, and heteroarylene independently substituted with one or more Z_1 , heteroarylene, and heteroarylene independently substituted with one or more Z_1 ;

20 Y_2 taken alone is selected from the group consisting of $-H$, alkyl, alkyl independently substituted with one or more Z_1 , heteroalkyl, heteroalkyl independently substituted with one or more Z_1 , aryl, aryl independently substituted with one or more Z_1 , heteroaryl, heteroaryl independently substituted with one or more Z_1 , arylalkyl, arylalkyl independently substituted with one or more Z_1 , heteroarylalkyl, and heteroarylalkyl independently substituted with one or more Z_1 , or Y_2 taken together with R_1 , R_{11} or Y_1 is selected from the group consisting of 25 alkylene, alkylene independently substituted with one or more Z_1 , heteroalkylene, heteroalkylene independently substituted with one or more Z_1 , arylene, arylene independently substituted with one or more Z_1 , heteroarylene, and heteroarylene independently substituted with one or more Z_1 , heteroarylene, and heteroarylene independently substituted with one or more Z_1 ;

30 Y_3 taken alone is selected from the group consisting of $-H$, alkyl, alkyl independently substituted with one or more Z_1 , heteroalkyl, heteroalkyl independently substituted with one or more Z_1 , aryl, aryl independently substituted with one or more Z_1 , heteroaryl, heteroaryl

independently substituted with one or more Z_1 , arylalkyl, arylalkyl independently substituted with one or more Z_1 , heteroarylalkyl, and heteroarylalkyl independently substituted with one or more Z_1 , or Y_3 taken together with R_4 , R_5 , R_6 , R_{13} or Y_4 is selected from the group consisting of alkylene, alkylene independently substituted with one or more Z_1 , heteroalkylene,
5 heteroalkylene independently substituted with one or more Z_1 , aryleno, aryleno independently substituted with one or more Z_1 , heteroaryleno, and heteroaryleno independently substituted with one or more Z_1 ;

10 Y_4 is absent, or Y_4 taken alone is selected from the group consisting of $-H$, alkyl, alkyl independently substituted with one or more Z_1 , heteroalkyl, heteroalkyl independently substituted with one or more Z_1 , aryl, aryl independently substituted with one or more Z_1 , heteroaryl, heteroaryl independently substituted with one or more Z_1 , arylalkyl, arylalkyl independently substituted with one or more Z_1 , heteroarylalkyl, and heteroarylalkyl independently substituted with one or more Z_1 , or Y_4 taken together with R_4 , R_5 , R_6 , R_{13} or Y_3 is selected from the group consisting of alkylene, alkylene independently substituted with one or more Z_1 , heteroalkylene, heteroalkylene independently substituted with one or more Z_1 , aryleno, aryleno independently substituted with one or more Z_1 , heteroaryleno, and heteroaryleno independently substituted with one or more Z_1 ; and

15 20 Z_1 is selected from the group consisting of, $-R$, halogen, $-OS(O)_2OR$, $-S(O)_2OR$, $-S(O)_2R$, $-S(O)_2NR$, $-S(O)R$, $-OP(O)O_2RR$, $-P(O)O_2RR$, $-C(O)OR$, $-NRR$, $-NRRR$, $-NC(O)R$, $-C(O)R$, $-C(O)NRR$, $-CN$, $-O$ and $-OR$, wherein R is independently selected from the group consisting of $-H$, alkyl, heteroalkyl, aryl, heteroaryl, arylalkyl, heteroarylalkyl and linking group.

25 2. The compound of **claim 1** wherein Y_1 is taken together with R_1 or R_{11} and is C_2 or C_3 alkylene or alkylene independently substituted with one or more Z_1 , or Y_2 is taken together with R_1 or R_{11} and is C_2 or C_3 alkylene or alkylene independently substituted with one or more Z_1 , or Y_3 is taken together with R_4 or R_5 or R_6 or R_{13} and is C_2 or C_3 alkylene or alkylene independently substituted with one or more Z_1 , or Y_4 is taken together with R_4 or R_5 or R_6 or R_{13} and is C_2 or C_3 alkylene or alkylene independently substituted with one or more Z_1 .
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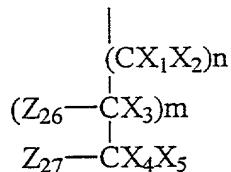
3. The compound of **claim 2** wherein the C_2 or C_3 substituted alkylene is gem disubstituted with C_1 to C_3 alkyl.

4. The compound of **claim 3** wherein the C₂ or C₃ substituted alkylene is gem disubstituted with methyl.

5 5. The compound of **claim 1** wherein R₈ is alkyl independently substituted with one or more substituents selected from the group consisting of halogen, -C(O)R, and -S(O)₂R wherein R is independently selected from the group consisting of -OH, O-alkyl, -NH₂, N-alkyl and linking group.

10 6. The compound of **claim 1** wherein R₈ is -CF₃.

7. The compound of **claim 1** wherein R₈ is



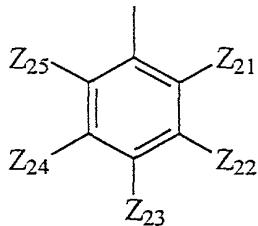
15 wherein Z₂₆ and Z₂₇ are each independently selected from the group consisting of hydrogen, -OS(O)₂OR, -S(O)₂OR, -S(O)₂R, -S(O)₂NR, -S(O)R, -OP(O)O₂RR, -P(O)O₂RR, -C(O)OR, -NR, -NRR, -NC(O)R, -C(O)R, -C(O)NRR, -NC(O)R, R, and -OR, wherein R is independently selected from the group consisting of -H, alkyl, heteroalkyl, aryl, heteroaryl, arylalkyl, heteroarylalkyl and linking group, and X₁, X₂, X₃, X₄, and X₅ are each 20 independently selected from the group consisting of hydrogen, -Cl, -Br and -F, wherein n and m are integers each independently ranging from 0 to 5.

8. The compound of **claim 7** wherein X₁ and X₂ are -H.

25 9. The compound of **claim 7** wherein X₁, X₂, X₄, and X₅ are each -F.

10. The compound of **claim 1** wherein R₈ is aryl or aryl independently substituted with one or more Z₁.

11. The compound of **claim 1** wherein R₈ has the structure



wherein Z₂₁, Z₂₂, Z₂₃, Z₂₄ and Z₂₅ each taken separately are Z₁.

12. The compound of **claim 11** wherein Z₂₁, Z₂₂, Z₂₃, Z₂₄ and Z₂₅ are each independently selected from the group consisting of -H, halogen, C₁ to C₃ alkyl, -C(O)OR, -C(O)R, -S(O)₂OR, -S(O)₂R, and -CH₂OR, wherein R is independently selected from the group consisting of -H, alkyl, heteroalkyl, aryl, heteroaryl, arylalkyl, heteroarylalkyl and linking group.

13. The compound of **claim 11** wherein one or more of Z₂₁, Z₂₂, Z₂₃, Z₂₄ or Z₂₅ is -Cl or -F.

14. The compound of **claim 11** wherein Z₂₁ is -C(O)OH.

20. The compound of **claim 11** wherein Z₂₁ is -C(O)OH and one of Z₂₃ or Z₂₄ is -C(O)OH.

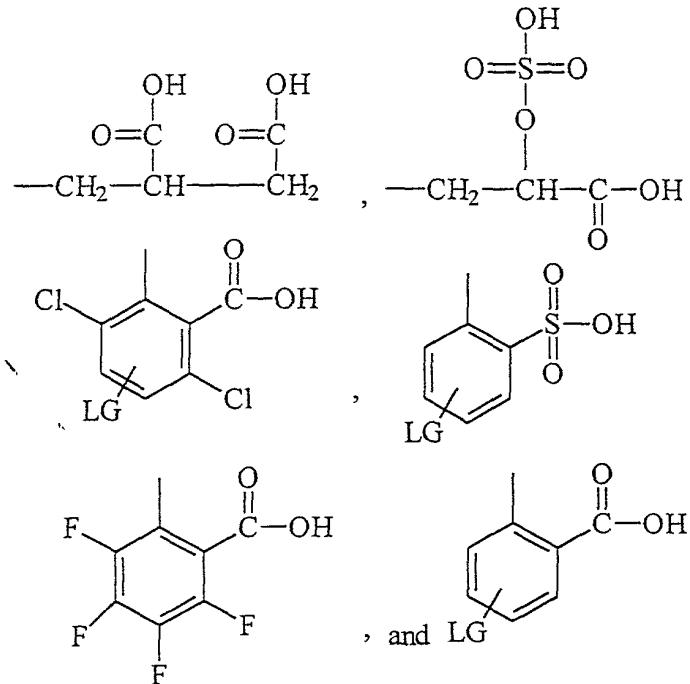
16. The compound of **claim 11** wherein Z₂₂ and Z₂₅ are each -Cl.

25. The compound of **claim 11** wherein Z₂₂, Z₂₃, Z₂₄ and Z₂₅ are each -F.

18. The compound of **claim 11** wherein Z₂₁ is -S(O)₂OH and one of Z₂₃ or Z₂₄ is -C(O)OH.

30. The compound of **claim 11** wherein Z₂₁ is -C(O)OR and one of Z₂₂, Z₂₃, or Z₂₄ is linking group.

20. The compound of **claim 1** wherein R₈ is selected from the group consisting of



wherein LG is linking group.

21. The compound of **claim 1** wherein at least one of Y₁, Y₂, Y₃, or Y₄ taken
20 separately is selected from the group consisting of -H, alkyl, aryl and arylalkyl.

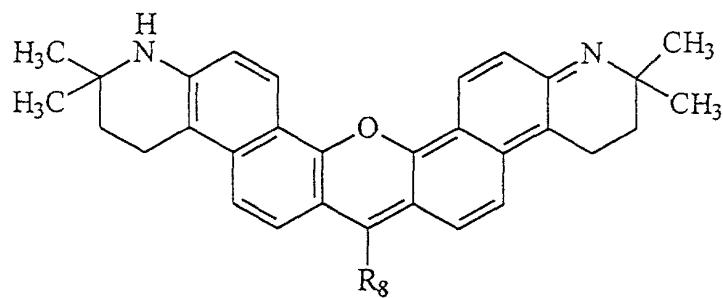
22. The compound of **claim 1** wherein one or more of R₁, R₄, R₅, R₆, R₇, R₉, R₁₀, R₁₁ and R₁₃ is each independently -S(O)₂OH.

25 23. The compound of **claim 1** wherein one or more of R₁, R₄, R₅, R₆, R₇, R₉, R₁₀, R₁₁ and R₁₃ are each independently -F or -Cl.

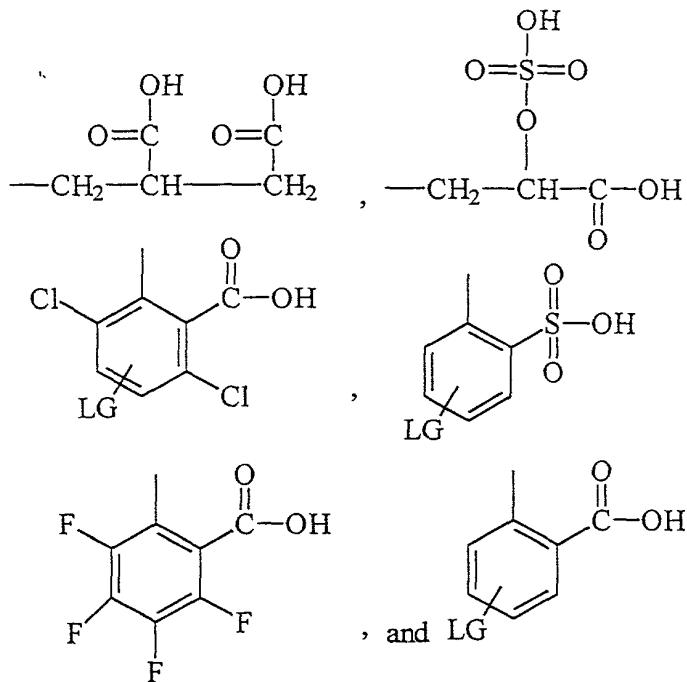
24. The compound of **claim 1** wherein one or more of R₁, R₄, R₅, R₆, R₇, R₉, R₁₀, R₁₁ and R₁₃ is each independently aryl or aryl independently substituted with one or more Z₁.

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25. The compound of **claim 1** having the structure

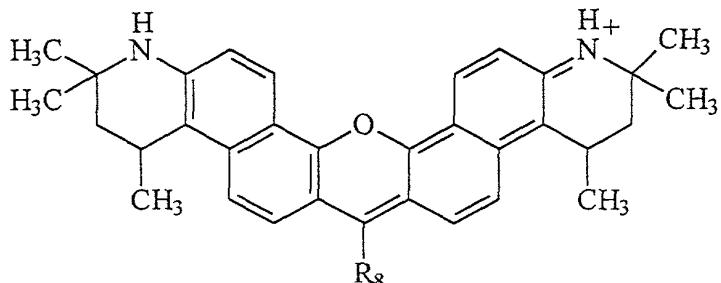


wherein R_8 is selected from the group consisting of

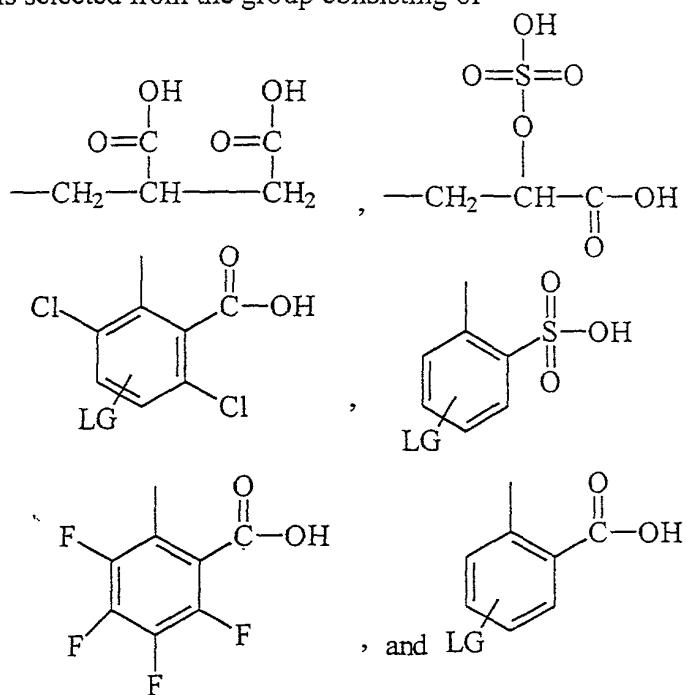


wherein LG is linking group.

26. The compound of **claim 1** having the structure

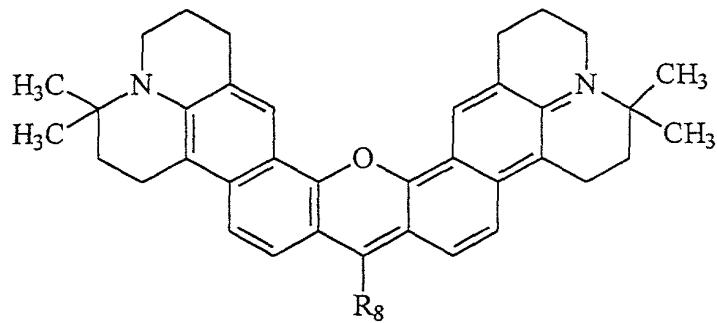


wherein R₈ is selected from the group consisting of

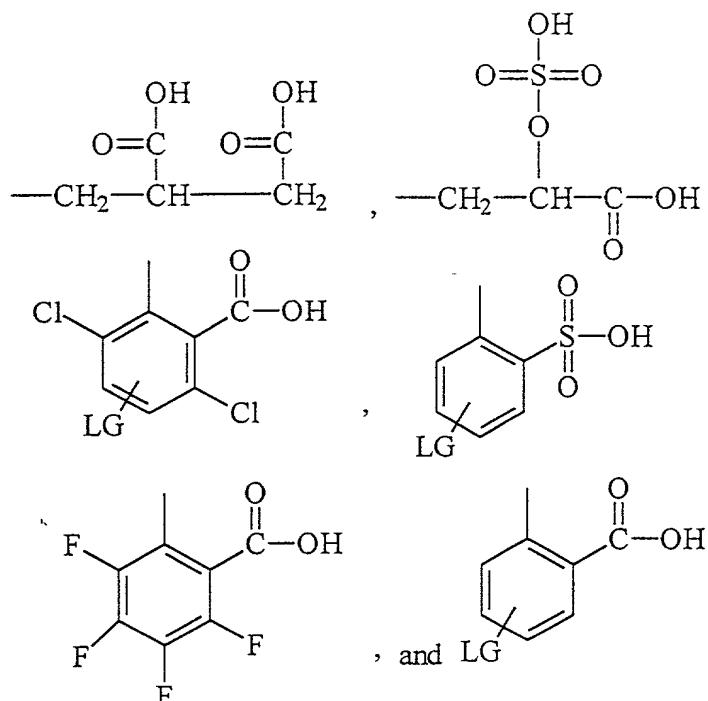


wherein LG is linking group.

27. The compound of **claim 1** having the structure



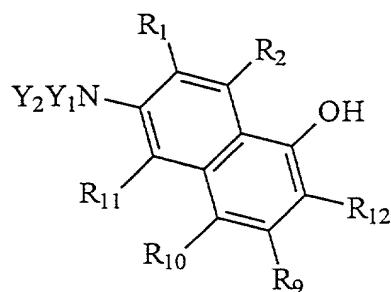
wherein R₈ is selected from the group consisting of



wherein LG is linking group.

28. An intermediate useful for the synthesis of extended rhodamine compounds

having the structure



wherein

R₁ taken alone is selected from the group consisting of -H, alkyl, alkyl independently substituted with one or more Z₁, heteroalkyl, heteroalkyl independently substituted with one or more Z₁, aryl, aryl independently substituted with one or more Z₁, heteroaryl, heteroaryl independently substituted with one or more Z₁, arylalkyl, arylalkyl independently substituted

with one or more Z_1 , heteroarylalkyl, heteroarylalkyl independently substituted with one or more Z_1 , halogen, $-OS(O)_2OR$, $-S(O)_2OR$, $-S(O)_2R$, $-S(O)_2NR$, $-S(O)R$, $-OP(O)O_2RR$, $-P(O)O_2RR$, $-C(O)OR$, $-NRR$, $-NRRR$, $-NC(O)R$, $-C(O)R$, $-C(O)NRR$, $-CN$, and $-OR$, wherein 5 R is independently selected from the group consisting of $-H$, alkyl, heteroalkyl, aryl, heteroaryl, arylalkyl, heteroarylalkyl and linking group, or, R_1 taken together with R_2 , Y_1 , or Y_2 is selected from the group consisting of alkylene, alkylene independently substituted with one or more Z_1 , heteroalkylene, heteroalkylene independently substituted with one or more Z_1 , arylene, arylene independently substituted with one or more Z_1 , heteroarylene, and heteroarylene independently substituted with one or more Z_1 ;

10 R_2 taken alone is selected from the group consisting of $-H$, alkyl, alkyl independently substituted with one or more Z_1 , heteroalkyl, heteroalkyl independently substituted with one or more Z_1 , aryl, aryl independently substituted with one or more Z_1 , heteroaryl, heteroaryl independently substituted with one or more Z_1 , arylalkyl, arylalkyl independently substituted with one or more Z_1 , heteroarylalkyl, heteroarylalkyl independently substituted with one or more Z_1 , halogen, $-OS(O)_2OR$, $-S(O)_2OR$, $-S(O)_2R$, $-S(O)_2NR$, $-S(O)R$, $-OP(O)O_2RR$, $-P(O)O_2RR$, $-C(O)OR$, $-NRR$, $-NRRR$, $-NC(O)R$, $-C(O)R$, $-C(O)NRR$, $-CN$, and $-OR$, wherein 15 R is independently selected from the group consisting of $-H$, alkyl, heteroalkyl, aryl, heteroaryl, arylalkyl, heteroarylalkyl and linking group, or, R_2 taken together with R_1 is selected from the group consisting of alkylene, alkylene independently substituted with one or more Z_1 , heteroalkylene, heteroalkylene independently substituted with one or more Z_1 , arylene, arylene independently substituted with one or more Z_1 , heteroarylene, and heteroarylene independently substituted with one or more Z_1 ;

20 R_3 is selected from the group consisting of $-H$, alkyl, alkyl independently substituted with one or more Z_1 , heteroalkyl, heteroalkyl independently substituted with one or more Z_1 , aryl, aryl independently substituted with one or more Z_1 , heteroaryl, heteroaryl independently substituted with one or more Z_1 , arylalkyl, arylalkyl independently substituted with one or more Z_1 , heteroarylalkyl, heteroarylalkyl independently substituted with one or more Z_1 ;

25 R_4 taken alone is selected from the group consisting of $-H$, alkyl, alkyl independently substituted with one or more Z_1 , heteroalkyl, heteroalkyl independently substituted with one or more Z_1 , aryl, aryl independently substituted with one or more Z_1 , heteroaryl, heteroaryl independently substituted with one or more Z_1 , arylalkyl, arylalkyl independently substituted with one or more Z_1 , heteroarylalkyl, heteroarylalkyl independently substituted with one or 30 more Z_1 ;

more Z_1 , halogen, $-OS(O)_2OR$, $-S(O)_2OR$, $-S(O)_2R$, $-S(O)_2NR$, $-S(O)R$, $-OP(O)O_2RR$, $-P(O)O_2RR$, $-C(O)OR$, $-NRR$, $-NRRR$, $-NC(O)R$, $-C(O)R$, $-C(O)NRR$, $-CN$, and $-OR$, wherein R is independently selected from the group consisting of $-H$, alkyl, heteroalkyl, aryl, heteroaryl, arylalkyl, heteroarylalkyl and linking group, or, R_9 taken together with R_{10} is selected from the group consisting of alkylene, alkylene independently substituted with one or more Z_1 , heteroalkylene, heteroalkylene independently substituted with one or more Z_1 , arylene, arylene independently substituted with one or more Z_1 , heteroarylene, and heteroarylene independently substituted with one or more Z_1 ;

R_{10} taken alone is selected from the group consisting of $-H$, alkyl, alkyl independently substituted with one or more Z_1 , heteroalkyl, heteroalkyl independently substituted with one or more Z_1 , aryl, aryl independently substituted with one or more Z_1 , heteroaryl, heteroaryl independently substituted with one or more Z_1 , arylalkyl, arylalkyl independently substituted with one or more Z_1 , heteroarylalkyl, heteroarylalkyl independently substituted with one or more Z_1 , halogen, $-OS(O)_2OR$, $-S(O)_2OR$, $-S(O)_2R$, $-S(O)_2NR$, $-S(O)R$, $-OP(O)O_2RR$, $-P(O)O_2RR$, $-C(O)OR$, $-NRR$, $-NRRR$, $-NC(O)R$, $-C(O)R$, $-C(O)NRR$, $-CN$, and $-OR$, wherein R is independently selected from the group consisting of $-H$, alkyl, heteroalkyl, aryl, heteroaryl, arylalkyl, heteroarylalkyl and linking group, or, R_{10} taken together with R_9 or R_{11} is selected from the group consisting of alkylene, alkylene independently substituted with one or more Z_1 , heteroalkylene, heteroalkylene independently substituted with one or more Z_1 , arylene, arylene independently substituted with one or more Z_1 , heteroarylene, and heteroarylene independently substituted with one or more Z_1 ;

R₁₁ taken alone is selected from the group consisting of -H, alkyl, alkyl independently substituted with one or more Z₁, heteroalkyl, heteroalkyl independently substituted with one or more Z₁, aryl, aryl independently substituted with one or more Z₁, heteroaryl, heteroaryl independently substituted with one or more Z₁, arylalkyl, arylalkyl independently substituted with one or more Z₁, heteroarylalkyl, heteroarylalkyl independently substituted with one or more Z₁, halogen, -OS(O)₂OR, -S(O)₂OR, -S(O)₂R, -S(O)₂NR, -S(O)R, -OP(O)O₂RR, -P(O)O₂RR, -C(O)OR, -NRR, -NRRR, -NC(O)R, -C(O)R, -C(O)NRR, -CN, and -OR, wherein R is independently selected from the group consisting of -H, alkyl, heteroalkyl, aryl, heteroaryl, arylalkyl, heteroarylalkyl and linking group, or, R₁₁ taken together with R₁₀, Y₁ or Y₂ is selected from the group consisting of alkylene, alkylene independently substituted with one or more Z₁, heteroalkylene, heteroalkylene independently substituted with one or more Z₁,

aryleno, aryleno independently substituted with one or more Z_1 , heteroaryleno, and heteroaryleno independently substituted with one or more Z_1 ;

R_{12} is selected from the group consisting of -H and $-C(O)R_3$;

Y_1 taken alone is selected from the group consisting of -H, alkyl, alkyl independently substituted with one or more Z_1 , heteroalkyl, heteroalkyl independently substituted with one or more Z_1 , aryl, aryl independently substituted with one or more Z_1 , heteroaryl, heteroaryl independently substituted with one or more Z_1 , arylalkyl, arylalkyl independently substituted with one or more Z_1 , heteroarylalkyl, and heteroarylalkyl independently substituted with one or more Z_1 , or Y_1 taken together with R_1 , R_{11} or Y_2 is selected from the group consisting of alkyleneo, alkyleneo independently substituted with one or more Z_1 , heteroalkyleneo, heteroalkyleneo independently substituted with one or more Z_1 , aryleno, aryleno independently substituted with one or more Z_1 , heteroaryleno, and heteroaryleno independently substituted with one or more Z_1 ;

Y_2 taken alone is selected from the group consisting of -H, alkyl, alkyl independently substituted with one or more Z_1 , heteroalkyl, heteroalkyl independently substituted with one or more Z_1 , aryl, aryl independently substituted with one or more Z_1 , heteroaryl, heteroaryl independently substituted with one or more Z_1 , arylalkyl, arylalkyl independently substituted with one or more Z_1 , heteroarylalkyl, and heteroarylalkyl independently substituted with one or more Z_1 , or Y_2 taken together with R_1 , R_{11} or Y_1 is selected from the group consisting of alkyleneo, alkyleneo independently substituted with one or more Z_1 , heteroalkyleneo, heteroalkyleneo independently substituted with one or more Z_1 , aryleno, aryleno independently substituted with one or more Z_1 , heteroaryleno, and heteroaryleno independently substituted with one or more Z_1 ; and

Z_1 is selected from the group consisting of, -R, halogen, $-OS(O)_2OR$, $-S(O)_2OR$, -
25 $S(O)_2R$, $-S(O)_2NR$, $-S(O)R$, $-OP(O)O_2RR$, $-P(O)O_2RR$, $-C(O)OR$, $-NRR$, $-NRRR$, $-NC(O)R$, $-C(O)R$, $-C(O)NRR$, $-CN$, $-O$ and $-OR$, wherein R is independently selected from the group consisting of -H, alkyl, heteroalkyl, aryl, heteroaryl, arylalkyl, heteroarylalkyl and linking group.

30 29. The compound of **claim 28** wherein Y_1 is taken together with R_1 or R_{11} and is C_2 or C_3 alkyleneo or alkyleneo independently substituted with one or more Z_1 , or Y_2 is taken together

with R_1 or R_{11} and is C_2 or C_3 alkylene or alkylene independently substituted with one or more Z_1 .

30. The compound of **claim 29** wherein the C_2 or C_3 substituted alkylene is gem 5 disubstituted with C_1 to C_3 alkyl.

31. The compound of **claim 30** wherein the C_2 or C_3 substituted alkylene is gem disubstituted with methyl.

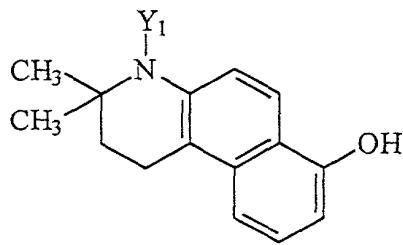
10 32. The compound of **claim 28** wherein at least one of Y_1 or Y_2 taken separately is selected from the group consisting of -H, alkyl, aryl and arylalkyl.

33. The compound of **claim 28** wherein one or more of R_1 , R_2 , R_9 , R_{10} and R_{11} is each independently $-S(O)_2OH$.

15 34. The compound of **claim 28** wherein one or more of R_1 , R_2 , R_9 , R_{10} and R_{11} is each independently $-F$ or $-Cl$.

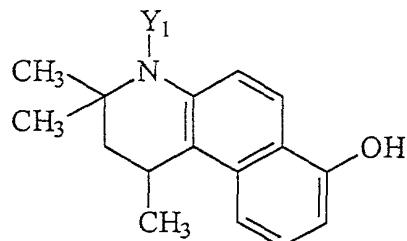
20 35. The compound of **claim 28** wherein one or more of R_1 , R_2 , R_9 , R_{10} and R_{11} is each independently aryl or aryl independently substituted with one or more Z_1 .

36. The compound of **claim 28** having the structure



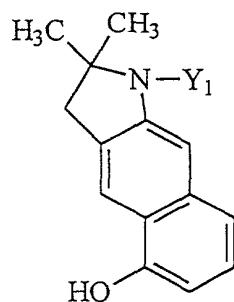
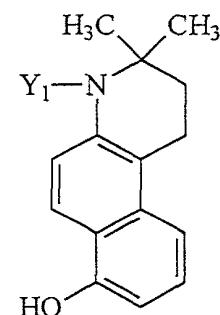
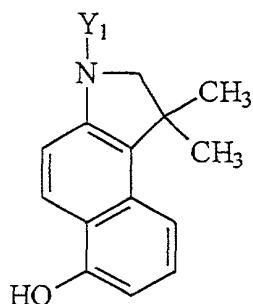
37. The compound of **claim 28** having the structure

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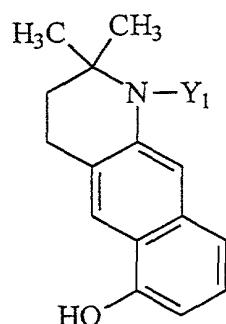
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38. The compound of **claim 28** which is selected from the group consisting of



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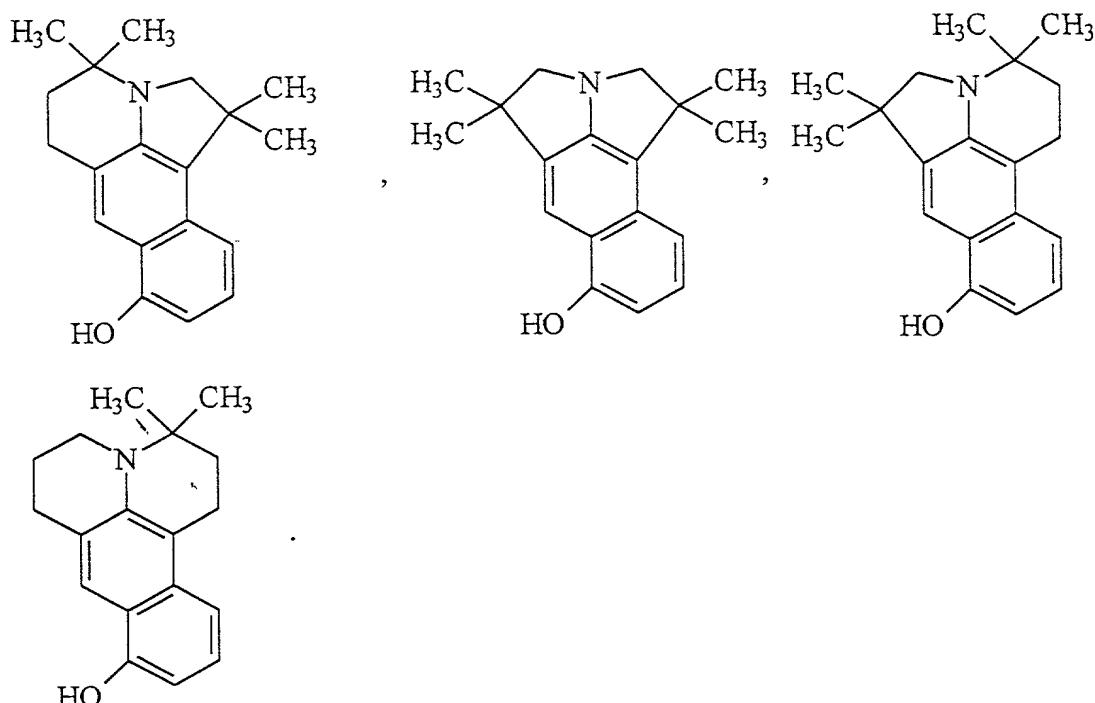
and



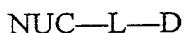
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39. The compound of **claim 28** selected from the group consisting of



40. A labeled nucleoside/tide having the formula:



wherein

NUC is a nucleoside/tide or nucleoside/tide analog;

L is a linkage;

D is an extended rhodamine dye compound of **claim 1**;

wherein if NUC comprises a purine base, the linkage is attached to the 8-position of the

25 purine, if NUC comprises a 7-deazapurine base, the linkage is attached to the 7-position of the 7-deazapurine, and if NUC comprises a pyrimidine base, the linkage is attached to the 5-position of the pyrimidine.

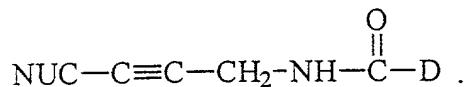
41. The labeled nucleoside/tide of **claim 40** wherein NUC comprises a base selected

30 from the group consisting of uracil, cytosine, deazaadenine, and deazaguanosine.

42. The labeled nucleoside/tide of **claim 40** wherein NUC is a nucleotide terminator compound.

43. The labeled nucleoside/tide of **claim 40** having the structure

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44. A method of fragment analysis comprising the steps of:

10 forming one or more labeled polynucleotide fragments, the fragments being labeled with an extended rhodamine compound of **claim 1**;
resolving the one or more labeled polynucleotide fragments; and
detecting the resolved labeled polynucleotide fragments.

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45. The method of **claim 44** wherein the resolving step is an electrophoretic size-dependent separation process and the one or more labeled polynucleotide fragments are detected by fluorescence.

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